

In the Claims:

Please cancel Claim 10 without prejudice or disclaimer.

1. (Currently Amended) An isolated nucleic acid having at least 80% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);

(b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;

(c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);

~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~

(e) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);

(f) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or

(g) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652;

wherein said isolated nucleic acid has acyltransferase activity.

2. (Currently Amended) The isolated nucleic acid of Claim 1 having at least 85% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);

(b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;

(c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);

~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~
(e d) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);
(f e) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or
(g f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652.

3. (Currently Amended) The isolated nucleic acid of Claim 1 having at least 90% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);
(b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;
(c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);
~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~
(e d) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);
(f e) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or
(g f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652.

4. (Currently Amended) The isolated nucleic acid of Claim 1 having at least 95% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);

(b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;

(c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);

~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~

(~~e~~ d) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);

(~~f~~ e) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or

(~~g~~ f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652.

5. (Currently Amended) The isolated nucleic acid of Claim 1 having at least 99% nucleic acid sequence identity to:

(a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);

(b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;

(c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);

~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~

(~~e~~ d) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);

(~~f~~ e) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or

(~~g~~ f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652.

6.(Currently Amended) An isolated nucleic acid comprising:

- (a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);
- (b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;
- (c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);
- ~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~
- (e ~~d~~) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);
- (~~f~~ e) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or
- (~~g~~ f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652;
wherein said isolated nucleic acid has acyltransferase activity.

7. (Original) The isolated nucleic acid of Claim 6 comprising a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102).

8. (Original) The isolated nucleic acid of Claim 6 comprising a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide.

9.(Currently Amended) The isolated nucleic acid of Claim 6 comprising a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102).

10. (Canceled) The isolated nucleic acid of Claim 6 comprising a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide.

11. (Original) The isolated nucleic acid of Claim 6 comprising the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101).

12.(Original) The isolated nucleic acid of Claim 6 comprising the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101).

13. (Original) The isolated nucleic acid of Claim 6 comprising the full-length coding sequence of the cDNA deposited under ATCC accession number 203652.

14.(Currently Amended) An isolated nucleic acid that hybridizes to:

- (a) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102);
 - (b) a nucleic acid sequence encoding the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;
 - (c) a nucleic acid sequence encoding ~~the extracellular domain~~ amino acids 109-353 of the polypeptide shown in Figure 102 (SEQ ID NO:102);
 - ~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 102 (SEQ ID NO:102), lacking its associated signal peptide;~~
 - (e d) the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101);
 - (f e) the full-length coding sequence of the nucleic acid sequence shown in Figure 101 (SEQ ID NO:101); or
 - (g f) the full-length coding sequence of the cDNA deposited under ATCC accession number 203652;
- wherein said isolated nucleic acid has acyltransferase activity.

15.(Currently Amended) The isolated nucleic acid of Claim 14, wherein said hybridization occurs under the stringent conditions of 50% formamide, 5 x SSC (0.75 M NaCl, 0.075 M sodium citrate), 50 mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5 x

Denhardt's solution, sonicated salmon sperm DNA (50 µg/ml), 0.1% SDS, and 10% dextran sulfate at 42°C, with washes at 42°C in 0.2 x SSC (sodium chloride/sodium citrate) and 50% formamide at 55°C, followed by a high-stringency wash consisting of 0.1 x SSC containing EDTA at 55°C.

16. (Original) The isolated nucleic acid of Claim 14 which is at least 10 nucleotides in length.

17. (Original) A vector comprising the nucleic acid of Claim 1.

18. (Original) The vector of Claim 17, wherein said nucleic acid is operably linked to control sequences recognized by a host cell transformed with the vector.

19. (Original) A host cell comprising the vector of Claim 17.

20. (Original) The host cell of Claim 19, wherein said cell is a CHO cell, an *E. coli* or a yeast cell.